have taken place and the information shall be noted in the test report.

(h) *Duration of testing.* The test shall be continued for at least one hour or until the maximum surface temperature rise values noted in §164.007–5(a) have been reached, whichever occurs later.

§164.007–5 Test requirements.

The insulation value of the specimens for the full scale test shall be such that the average temperature of the thermocouples on the unexposed surface described in §164.007–4(f)(2) will not rise more than 139 °C. (250 °F.) above the initial temperature, nor will the temperature at any one point on the surface, including any through metallic connection, rise more than 181 °C. (325 °F.) above the original temperature at the end of 60 minutes. The results obtained on the small scale test 2′ × 2′ (60 cm. × 60 cm.) shall be recorded.

§164.007–6 Test report.

(a) The test report required shall contain at least the following:

(1) Name of manufacturer.

(2) Purpose of test.

(3) Test conditions and date of test.

(4) Description of the panel tested giving the details of the assembly comprising a steel plate, insulation (thickness and density) spacer strips and fastening and the method of mounting the panel assembly in the test furnace.

(5) Complete time-temperature data, including initial temperature, for each thermocouple together with curves of average temperature for the unexposed surface of the insulation and the thermocouple recording the highest temperature. In addition, for §164.007–9(g)(2), complete time-temperature data consisting of a numerical time-temperature table for each furnace and each surface of insulation thermocouple together with the initial temperature of each thermocouple.

(6) A log maintained by the owner relative to deflections, cracking or loosening of the insulation, smoke or gas emission, glow, flame emission, and any other important data. The time of each observation should be noted.

(7) Photographs of both sides of the panel before and after testing.

(8) Summary of test results.

(b) [Reserved]

§164.007–7 Analysis of results.

(a) When only one sample is tested, the results of the test shall be binding and no analysis by the Coast Guard will be undertaken.

(b) When more than one sample of the same density material is tested simultaneously and the results are not exact, the Coast Guard may analyze the results. Data from the tests may be analyzed to determine the minimum thickness to meet the requirements of §164.007–5(a).

(c) Consideration will be given to correction for inaccurate furnace control in accordance with §164.007–4(d)(4).

[CGFR 69–72, 34 FR 17498, Oct. 29, 1969; 34 FR 19030, Nov. 29, 1969]

§164.007–8 Retests.

(a) Manufacturers of approved structural insulation shall maintain quality control of materials used, manufacturing methods, and the finished product utilizing appropriate quality control testing so as to meet the requirements of this specification, and any other conditions outlined on the certificate of approval. Structural insulation materials are not inspected at regularly scheduled factory inspections; however, approved materials are subject to retest for continued compliance with the requirements of this subpart on the following basis:

(1) The Coast Guard may detail a marine inspector or other Coast Guard designated inspector at any time to visit any place where structural insulation is manufactured to conduct any inspections or examinations deemed advisable and to select representative samples for further examination, inspection, or tests. The inspector shall be admitted to any place where work is done on structural insulation or component materials.

(2) At a frequency of not less than once every 5 years following issuance of approval, samples of an approved material selected from production stock shall be forwarded by the inspector to the Commandant for testing in accordance with the requirements of this subpart. Where the plant is outside

the jurisdiction of a Coast Guard District Commander, the frequency of such testing shall be once every 2 years. The cost of such testing shall be borne by the manufacturer. The nature of the product or its production may dictate a differing retest frequency.

(3) The Coast Guard reserves the right to make spot-check tests of approved structural insulation at any time on samples selected by a marine inspector obtained during installation on a vessel. The manufacturer will incur no expense for such tests, but the results, shall be binding upon the approval of his product.

(b) A small scale furnace test (2′ × 2′ furnace test 60 cm. × 60 cm.) shall be conducted. The time of failure shall not vary from the original small scale test values by more than 10 percent. In addition tests shall be conducted to determine incombustibility (§164.009), density and thickness. Values of retesting for density and thickness shall not vary from the original test values by more than 10 percent.

§ 164.007–9 Procedure for approval.

The following items shall be accomplished in sequential order.

(a) *Test request information*. If a manufacturer desires to have a structural insulation approved, a written request shall be submitted to the Commandant of the Coast Guard together with the following:

(1) If the material has already been approved as an incombustible material under subpart 164.009 of this part, the approval number of the material shall be indicated. If not, the procedure set forth in subpart 164.009 of this part shall be followed; and such approval shall be obtained prior to submittal under this specification.

(2) A description and trade name of the structural insulation.

(3) A statement of the composition of the material and the percentage of each component.

(4) A sample of the material at least 1 foot square in the thickness and density proposed by the manufacturer to be tested. When more than one thickness of a material of the same density is to be tested, only a sample of a single thickness need be submitted.

(5) The range of thicknesses and densities in which it is proposed to manufacture or use the material together with any information or recommendations that the manufacturer may have as to maximum or minimum thickness or density.

(6) The location of the place or places where the material will be manufactured.

(7) Description of attachment to or protection of the bulkhead or deck. If an adhesive is used, a liberal sample shall be supplied.

(8) A sketch showing typical installation methods and indicating limitations if any.

(9) A general statement describing manufacturing procedures indicating the degree of quality control exercised and the degree of inspection performed by outside organizations.

(10) A statement indicating proposed methods for field identification of the products as being approved. Identification shall include the Coast Guard approval numbers.

(b) *Test suitability*. The above information will be examined by the Coast Guard, and if it is indicated that the material is in all respects suitable for testing, the manufacturer will be so advised. Coast Guard comments on the manufacturer's recommended thickness and density of the sample or samples for the fire resistance test will be given at this time, together with the estimated cost of the required test.

(c) *Samples to be submitted*. If the material is indicated as being suitable for testing, the manufacturer shall submit a 100 cm. × 150 cm. (40″ × 60″) sample, a 30 cm. × 30 cm. (12″ × 12″) sample and a 60 cm. × 60cm. (24″ × 24″) sample for each thickness and density proposed to the Fire Research section of the National Bureau of Standards, Washington, DC 20234, and shall advise the Coast Guard of the shipment. A separate test will be made for each density of the material for which approval is desired.

(d) *Pretest information*. At this time the manufacturer shall submit to the Coast Guard the following:

(1) A statement that the material is offered for testing as described pursuant to paragraph (a)(3) of this section is completely representative of the